CLIMATE PROGRAM OFFICE

Regional Integrated Sciences and Assessments

How might climate variability and change affect environmental conditions in my community?

Can I get local- or regional-scale information about potential climate impacts such as water availability?

The Regional Integrated Sciences and Assessments (RISA) program supports interdisciplinary research and innovative outreach activities at local and regional scales. RISA teams collaborate directly with people who are involved with activities, resources, or property that may be vulnerable to climate variability and change, enhancing their capacity to use climate information and related decision-support resources effectively.

RISA Objectives

- Work with communities, resource managers, and end-users such as farmers and utilities to help them prepare for and adapt to a variable and changing climate.
- Create partnerships among regional institutions, engaging stakeholders to collaboratively assess climate-sensitive issues in the region.
- Coordinate, conduct, and evaluate integrated social, physical, and natural science research relevant to climate issues and socio-economic needs of high regional priority.
- Integrate interdisciplinary knowledge and experience into the design and support of effective responses to climate variability and change.
- Collaborate with regional institutions to bring climate predictions and information about climate impacts to decision makers.

John Lewis, National Weather Service

Dried lake sediments left behind a shrinking lake at Woolly Hollow State Park, Arkansas.

Approaches

RISA projects support regional research on how climate affects fisheries, water resources, wildfire, agriculture and ranching, public health, transportation, snowpack, and coasts. RISA teams collaborate with stakeholders to identify the potential impacts of climate variability and change on social, ecological, and economic systems in their region, and then develop responses to them. RISA teams also evaluate the impact of their efforts on regional and local stakeholders, policy and planning processes, and resource management.

RISA teams also prepare and present workshops and training sessions in their regions. These opportunities include:

- Seasonal Forest Fire Assessment workshops in the Southwest and Northeast,
- Regional Climate Change impacts assessment conferences,
- Water Resource forecast workshops in the Pacific Northwest,

Regional Integrated Sciences Application Program http://climate.noaa.gov/cpo_pa/risa

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Approaches (continued)

- Alaska Climate Impacts monthly conference calls,
- Pacific Islands climate impacts training, and
- Climate impacts trainings for U.S. Forest Service and Bureau of Reclaimation personnel.

Several RISA projects publish periodic seasonal outlooks and climate summaries to forecast or describe regional climate:

- "Southwest Climate Outlook" provides monthly summaries of climate information for Arizona and New Mexico.
- The "Intermountain West Climate Summary" provides information for water managers.
- The California Applications Program works collaboratively with the California Energy Commission to produce climate summary reports.

RISA teams develop tools that enable stakeholders to consider poential impacts of climate in their decisions:

- The Dynamic Drought Index Tool provides users with the ability to examine drought indices.
- The Agroclimate Website provides crop models and seasonal climate outlooks, enabling users to analyze information about climate and crop variations in the southeastern United States.
- Paleoclimate Web tools enable water resource managers to examine reconstructed steam flows for drought impact analyses in western river basins.
- A forecast evaluation tool enables users to interpret and examine past performance of climate forecasts.

RISA Highlight: The Southern Climate Impacts Planning Program

The newest RISA project, the Southern Climate Impacts Planning Program, has begun to assess the risks associated with climate variability, change, and drought in the six-state region of Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas. The project will work closely with municipal managers and other residents to develop climate-risk profiles of communities in the region. Profiles will include an inventory of potential risks related to drought and climate change.

Working collaboratively with a range of community stakeholders, the RISA group will develop tools and resources that assist local and regional community managers in their long-range planning. Planners will gain access to a unified hazards-assessment Web site to help them assess their risk and adaptation options. This project is an integral part of the evolution of the NOAA-led National Integrated Drought Information System.

Nine RISA projects provide services across most of the United States and its territories.